

302/332

Sys. Desi. Con.

B.C.A. (Part-III) EXAMINATION - 2022

(Faculty of Science)

(Three-Year Scheme of 10+2+3 Pattern)

SYSTEM DESIGN CONCEPTS

Time Allowed : 3 Hours

Maximum Marks : 100

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of questions.

Question paper consists of three parts.

All three parts are compulsory.

PART-I : (Very short answer) consists 10 questions of 2 marks each. Maximum limit for each question is upto 40 words.

PART-II : (Short answer) consists 5 questions of 4 marks each. Maximum limit for each question is upto 80 words.

PART-III : (Long answer) consists 5 questions of 12 marks each with internal choice.

PART - I

1. (a) What is Open System ?
- (b) Define Linear Cycle.
- (c) What do you mean by System Design ?
- (d) What is Entity ?
- (e) Define Test Case.
- (f) What do you mean by System Testing ?
- (g) What is Software Design ?
- (h) Write any two objectives of software project planning.
- (i) What do you mean by Balanced MIS ?
- (j) What is Information ?

PART - II

2. (a) Explain Prototyping.
- (b) What is Decision Table ?
- (c) What do you mean by System Maintenance ?
- (d) Explain Design Documentation.
- (e) What is the purpose of an MIS ?

PART - III

3. Explain :

- (a) Data Oriented Approach
- (b) Object Oriented Approach

OR

Explain System Development Life Cycle (SDLC) and its phases in detail.

4. Explain :

- (a) Process Modeling
- (b) Data Modeling

OR

Describe Entity Relationship Diagram in detail.

5. Explain :

- (a) Unit Testing
- (b) Integration Testing

OR

Explain :

- (a) Alpha and Beta Testing
- (b) Recovery Testing

6. Discuss software design principles in detail.

OR

Explain COCOMO model in detail.

7. Explain Simon's model of decision making in detail.

OR

What is Information System ? Discuss various types of Information system in detail.